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International Bureau

INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : C12Q 1/68, C12P 19/34, C07H 21/04 | A1

(11) International Publication Number: **WO 99/09217**

(43) International Publication Date: 25 February 1999 (25.02.99)

(21) International Application Number: PCT/US98/16966

(22) International Filing Date: 14 August 1998 (14.08.98)

(30) Priority Data:

08/912,885	15 August 1997 (15.08.97)	US
08/947,779	9 October 1997 (09.10.97)	US
08/959,365	28 October 1997 (28.10.97)	US

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(81) Designated States: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HR, HU, ID, IL, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, ARIPO patent (GH, GM, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published
With international search report.

(54) Title: METHODS AND COMPOSITIONS FOR DETECTION OR QUANTIFICATION OF NUCLEIC ACID SPECIES

(57) Abstract

The present invention provides a method for detecting a target nucleic acid species using an array of probes affixed to a substrate and a plurality of labeled probes. The invention also relates to oligonucleotide probes attached to discrete particles wherein the particles can be grouped into a plurality of sets based on a physical property. A different probe is attached to the discrete particles of each set, and the identity of the probe is determined by identifying the discrete particles from their physical property. The invention further relates to methods using agents which destabilize the binding of complementary polynucleotide strands (decrease the binding energy) or increase stability of binding between complementary polynucleotide strands (increase the binding energy). The figure is an illustration of an apparatus for mass producing probe arrays.